BORA LASKIN LAW LIBRARY
3 1761 10078726 6

UNIVERSITY OF TORONTO
FACULTY OF LAW

LOOKING AHEAD: THE BLURRED LINES OF TECHNOLOGY, BODY AND MIND

Benjamin Alarie &
Daniel Debow

Winter 2017

K
487
.T4A52
2017
c.1

BORA LASKIN LAW LIBRARY

DEC 2 0 2016

FACULTY OF LAW
UNIVERSITY OF TORONTO

UNIVERSITY OF TORONTO
FACULTY OF LAW

LOOKING AHEAD: THE BLURRED LINES OF TECHNOLOGY, BODY AND MIND

Benjamin Alarie &
Daniel Debow

Winter 2017

LAW337H1S / LAW6039HS
Looking Ahead: The Blurred Lines of Technology, Body, and Mind

University of Toronto, Faculty of Law
2016-2017

Instructors: Benjamin Alarie, ben.alarie@utoronto.ca & Daniel Debow, ddebow@gmail.com

Description: This course surveys the implications of emerging socially and economically transformative technologies, including machine learning, nanomaterials, robotics, genetic engineering, etc. The aim is to explore how exponential technological change and innovation will affect law and society in a variety of contexts — including medicine, law, education, finance, transportation, communication, the arts, and government — throughout the world in the coming decades. This course will be open to graduate students in other faculties, including engineering and computer science, and will encourage interdisciplinary discussion. While much of the material will examine at an introductory level many emerging technologies, no formal scientific background is expected of students.

Evaluation: Six comments of 500 words each (60%); a final paper of 3000 words (40%).

Schedule: Mondays, 8:30 am - 10:20 am

Class One: Exponential Dreams — Monday, January 2, 2017

Ray Kurzweil, "The Law of Accelerating Returns" in Christof Teuscher, ed, *Alan Turing: Life and Legacy of a Great Thinker* (Berlin: Springer-Verlag, 2004) 381.	5-40
Michael Trebilcock, *Dealing with Losers: The Political Economy of Policy Transitions* (New York: Oxford University Press, 2014) at ch 2.	41-53

Class Two: Exponential Nightmares — Monday, January 9, 2017

Frank H Easterbrook, "Cyberspace and the Law of the Horse" [1996] U Chicago Legal F 207.	54-63
Bill Joy, "Why the Future Doesn't Need Us", *Wired* 8:4 (April 2000) 238, online: <www.wired.com/2000/04/joy-2/>.	64-82
Thomas Piketty, *Capital in the Twenty-First Century* (Cambridge, Mass: The Belknap Press of Harvard University Press, 2014) at 1-38.	83-107

Class Three: Super Intelligence Monday, January 16, 2017

Nick Bostrom, *Superintelligence: Paths, Dangers, Strategies* (Oxford: Oxford University Press, 2014) at ch 3.	108-117
Lawrence B Solum, "Legal Personhood for Artificial Intelligences" (1992) 70:4 NCL Rev 1231.	118-174

Class Four: Cognitive Computing and the Future of Law Monday, January 23, 2017

Anthony J Casey & Anthony Niblett, "The Death of Standards" (2015) University of Chicago Public Law Working Paper No 550, online: Social Science Research Network <ssrn.com/abstract=2693826>.	175-229
Benjamin Alarie, "The Path of the Law: Toward Legal Singularity" (2016), online: Social Science Research Network <ssrn.com/abstract=2767835>.	230-240

Class Five: Biology Monday, January 30, 2017

Richard Dawkins, *The Selfish Gene* (New York: Oxford University Press, 2006) at ch 2.	241-250
Amy Maxmen, "The Genesis Engine", *Wired* 23:8 (August 2015) 56, online: <www.wired.com/2015/07/crispr-dna-editing-2/>.	251-259
Linda MacDonald Glenn, "Case Study: Ethical and Legal Issues in Human Machine Mergers (Or the Cyborgs Cometh)" (2012) 21:1 Ann Health L 175.	260-265
Devin Powell, "A Flexible Circuit Has Been Injected Into Living Brains", *Smithsonian Magazine* (8 June 2015), online: <www.smithsonianmag.com/ist/?next=/science-nature/flexible-circuit-has-been-injected-living-brains-180955525>.	266-268

Class Six: Bitcoin and the Blockchain Monday, February 6, 2017

Michael Nielsen, "How the Bitcoin Protocol Actually Works" (6 December 2013), *Data-Driven Intelligence* (blog), online: <www.michaelnielsen.org/ddi/how-the-bitcoin-protocol-actually-works/>.	269-286

Aaron Wright & Primavera De Filippi, "Decentralized Blockchain Technology and the Rise of Lex Cryptographia" (2015), online: Social Science Research Network <ssrn.com/abstract=2580664>.	287-344

Class Seven: Materials and Nanotechnology — Monday, February 13, 2017

Richard P Feynman, "Plenty of Room at the Bottom" (Lecture delivered at the American Physical Society, Pasedena, December 1959), online: <www.pa.msu.edu/~yang/RFeynman_plentySpace.pdf>.	345-351
K Eric Drexler, *The Engines of Creation* (Garden City, NY: Doubleday, 1986) at ch 1.	352-382
"Little Ants: Researchers Build the World's Tiniest Engine", *University of Cambridge Research* (2 May 2016), online: <www.cam.ac.uk/research/news/little-ants-researchers-build-the-worlds-tiniest-engine>.	383-384

Class Eight: Software is Eating the World — Monday, February 27, 2017

Marc Andreessen, "Why Software Is Eating the World", *The Wall Street Journal* (20 August 2011), online: <www.wsj.com/articles/SB10001424053111903480904576512250915629460>.	385-390
David Rotman, "Who Will Own the Robots?", *MIT Technology Review* (16 June 2015), online: <www.technologyreview.com/s/538401/who-will-own-the-robots/>.	391-400

Class Nine: The Future of Energy — Monday, March 6, 2017

Tim Urban, "How Tesla Will Change the World" (2 June 2015), *Wait But Why* (blog), online: <waitbutwhy.com/2015/06/how-tesla-will-change-your-life.html>.	401-472
Richard K Lester & David M Hart, *Unlocking Energy Innovation: How America Can Build a Low-Cost, Low-Carbon Energy System* (Cambridge, Mass: MIT Press, 2012) at ch 2.	473-486

Class Ten: Transportation — Monday, March 13, 2017

Ashlee Vance, *Elon Musk: Tesla, SpaceX, and the Quest for a Fantastic Future* (New York: Ecco, 2015) at ch 10.	487-514

Michael Belfiore, “The Rocketeer”, *Foreign Policy* 203 (December 2013) 102.	515-516

Class Eleven: Quantum Computing — Monday, March 20, 2017

David Deutsch & Artur Ekert, "Beyond the Quantum Horizon", *Scientific American* 307:3 (September 2012) 84.	517-522
Jennifer Ouellette, "How Quantum Computers and Machine Learning Will Revolutionize Big Data", *Wired* (14 October 2013), online: <www.wired.com/2013/10/computers-big-data/>.	523-529
Stephen Ornes, "Computing’s Search for Quantum Questions", *Quanta Magazine* (2 June 2016), online: <www.quantamagazine.org/20160602-computings-search-for-the-best-quantum-questions/>.	530-534

Class Twelve: Policy and Regulation — Monday, March 27, 2017

Nick Bostrom, "Technological Revolutions: Ethics and Policy in the Dark" in Nigel M de S Cameron & M Ellen Mitchell, eds, *Nanoscale: Issues and Perspectives for the Nano Century* (Hoboken, NJ: John Wiley, 2007) 129.	535-560
Marc A Saner & Gary E Marchant, "Proactive International Regulatory Cooperation for Governance of Emerging Technologies" (2015) 55 Jurimetrics J 147.	561-581

Digitized by the Internet Archive
in 2018 with funding from
University of Toronto

https://archive.org/details/lookingaheadblur00alar_0